

1. Record Nr.	UNINA9910746974103321
Titolo	Advancement of GI-Science and Sustainable Agriculture : A Multi-dimensional Approach // edited by Jayanta Das, Somenath Halder
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	9783031368257 3031368258
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (xxx, 341 pages) : illustrations (some color)
Collana	GIScience and Geo-environmental Modelling, , 2730-7514
Altri autori (Persone)	DasJayanta HalderSomenath
Disciplina	630.2086
Soggetti	Ecology Geographic information systems Environmental geography Agriculture Sustainability Environmental Sciences Geographical Information System Integrated Geography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part1.Sustainable Agriculture and Applied GIScience -- Nexus between GIScience and Sustainable Agriculture -- Geographic Information Science in Sake of Better Sustainable Agro Management -- Integration of IT-OT in Agriculture towards Sustainable and Competitive Farming -- Combination of Remote Sensing Indices for Agricultural Drought Monitoring using DEMATEL Method -- Recent Trends of Meteorological Variables and its impact on agriculture in Northwest Bangladesh -- Application of RS-GIS Based Multi Criteria Decision Making Model (MCDM) on Site Suitability Analysis for Potato Cultivation in Jalpaiguri District, West Bengal, India -- Comparative Assessment of Projected Suitability of Finger Millet Crops in Tamil Nadu and Parambikulam Aliyar Basin using ECOCROP Model. A Geospatial Approach -- Agricultural Site Suitability Modeling using Geospatial Techniques for

Sustainable Development in Koch Bihar District, West Bengal, India -- Part2. Agro-Ecology, Population and GIScience -- Value Chain Analysis of Sericulture in Bangladesh.Exploring Pro-poor Employment Potential -- Assessment of Potential Land Suitability for Tea Cultivation in Aizawl District, Mizoram: A Multi-Criteria Decision Making and Geospatial Approach -- Declining Groundwater Level and its Impact on Irrigation and Agro-Production -- Impact of Shifting Cultivation and Changing Land Use on the Hydrology of Iril Watershed, Manipur -- Impact of Overpopulation on Food Crisis and Fertilizer Usage -- Monitoring of Landslide and its Impact on Agriculture in Kottiyoor Panchayath, Kannur District, Kerala -- Agricultural Land Use Change and its Impact on the Farmers Livelihood Assets of Maldah District, West Bengal, India -- GIS Based Road Network Accessibility Analysis and its impact on Agricultural Development using Graph Theory. A Block Level Study of the Hill Areas of Darjeeling District, West Bengal -- A Story of Urban Expansion with Waste Water Usage in Agriculture. A Case Study of East Kolkata Wetlands.

Sommario/riassunto

This book describes the contributing aspects of contemporary developments related to sustainable agricultural resources and assessment of sustainable agriculture in developing nations. The issues like food crisis and declining agro-productivity, post-pandemic food security, zonation and mapping technique viewing food crisis, biotechnology and sustainable agricultural, scaling hunger indices, health hazard and food crisis, changing climate and food availability, consumer load and fertilizer usage, growing demand and increasing usage of harmful chemical in agro-fields are regarded as serious concerns. Thereafter, the scope of sustainable agricultural potentiality (SAP) modeling, amidst the arena of deforestation and encroachment of new cultivable land, impact of pandemic on sustainable agriculture, using wastewater as non-sustainable agricultural practice, applying geospatial techniques on extreme weather susceptibility and agro-production, soil erosion and poor agricultural production, questioning shifting cultivation on the issue of sustainability, meteorological drought and irrigational gaps, occupational mobility and loss of agricultural heritage, farm-excreta burning and air quality index (AQI), GI-Science and sustainable agro-management, community preparedness in food crisis management, multi-criteria hunger index (MCHI), climate change declining sustainable agro-production are worth some. Almost the entire world has recently suffered from several natural and human-induced problems, among which food crisis and unsustainable agriculture throw significant challenges to human society. Contrastingly, if modern technology and means, with advanced monitoring and calibration methodology and policy guidance, can help, it will undoubtedly reduce half of the world's problems and ensure the future survival of human society. In addition, this approach also can minimize the other partially linked problems, like climate change and food shortage, livelihood crisis, environmental refugees, international trade balance, global food supply chain interruption, the ever-expanding gap between rich and poor, and so on. Therefore, properly nurturing the knowledge on the application of GI-Science for an agriculturally sustainable society and their monitoring and management can curtail the gap between science, policy, and the ground-level scenario concerned.